

What is claimed is:

1. A data storage system comprising at least one data sending/receiving node and a relay node being provided between said data sending/receiving node and a network, which is for relaying data between said data sending/receiving node and said network, comprising:

5 a meta-data registering means for registering data processes which should be conducted in said relay node as meta-data, and

a data processing means for conducting data process in accordance with the processes defined by the meta-data registered in said meta-data registering means;

10 wherein meta-data designated by said data sending/receiving node is selected from said meta-data registering means, and data sent from said data sending/receiving node or data received by said data sending/receiving node are processed in accordance with the processes defined by the selected meta-data.

2. A data storage system according to Claim 1, wherein said relay node comprises a sending/receiving data memory means for storing data sent/received by said data sending/receiving node via said relay node, wherein said meta-data registering means registers meta-data, which define processes for automatically storing data sent/received from/by said data sending/receiving node, in said sending/receiving data memory means, and wherein data sent/received from/by said data sending/receiving node via said relay node is automatically stored in said sending/receiving data memory means.

3. A data storage system according to Claim 1, wherein meta-data defining processes for converting the data format of the data sent from said data sending/receiving node to a data format required by a destination of the data is registered in said meta-data registering means, and wherein when said data sending/receiving node sends data via said relay node, the data format of said data is converted to a format required by the destination in said relay node.

4. A data storage system according to Claim 1, wherein meta-data, which define processes for converting the data format of the data sent from an origin to a data format used in said data sending/receiving node, are registered in said meta-data registering means, and wherein when said data sending/receiving node receives data via said relay node, the data format of said data is converted to the format of the data sending/receiving node in said relay node.

5. A data storage system according to Claim 1, wherein meta-data, which define processes for conducting a virus check about data received by said data sending/receiving node, are registered in said meta-data registering means, and wherein data received by said data sending/receiving node is subjected to a virus check in accordance with the processes defined by the meta-data for virus checking in said relay node.

6. A data storage system according to Claim 1, wherein meta-data, which define processes for backing up about data dealt in said data sending/receiving node, are registered in said meta-data registering means, and wherein data dealt in said data sending/receiving node are backed up in accordance with the processes defined by the meta-data for backing up in said relay node.

7. A data storage system according to Claim 1, wherein said relay node further comprises a function for preventing irregular access to said data sending/receiving node, and/or, a function to split the load of communication lines between said relay node and said data sending/receiving node.

8. A data storage system according to Claim 7, wherein said relay node further comprises a function for preventing data leakage of data sent/received from/by said data sending/receiving node, a function for deleting unnecessary data included in data sent/received from/by said data sending/receiving node, and a function for obtaining a communication log of data sent/received from/by said data sending/receiving node, and wherein said relay node carries out one or more of the functions in accordance with a request from said data sending/receiving node.

9. A data storage system according to Claim 1, wherein said system further comprises a charge calculating means for calculating a charge for using the system for each data sending/receiving node, wherein the charge for using the system is calculated on the basis of the number of times which the data processing means in the data relay
5 node conducts data process and/or the type of the process that the data processing means conducts.

10. A data storage system according to Claim 1, wherein said system further comprises a charge calculating means for calculating a charge for using the system for each data sending/receiving node, wherein the charge for using the system is calculated on the basis of using the amount of computer resources in the relay node.